

REMARKS

Claims 1-12 are pending. Claims 5-12 are new. The applicants respectfully request reconsideration and allowance of this application in view of the following remarks.

Claims 1 and 3 were rejected under 35 USC 102(b) as being anticipated by the Japanese patent publication to Takashi. The applicants respectfully request that this rejection be withdrawn for the following reasons.

In the apparatus of claim 1, the rotation of an electric motor is used for detecting vibration of a vehicular braking apparatus using rotational fluctuations of an electric braking motor. When vibration of the braking apparatus is detected, vibration suppressing control is executed. The rotational amount (and fluctuations thereof) of the electric motor can be detected without an additional detection member in many cases, because the motor rotational amount may be known and used for controlling the motor (e.g., a brushless motor, a stepping motor or the like). Therefore, the apparatus of the present invention is relatively efficient.

In the Japanese patent publication to Takashi (JP2000-283193), brake torque or caliper pressing force is used for detection of vibration of the braking apparatus. The Takashi publication discloses vibration suppression. However, in the Takashi device, the brake torque or caliper pressing force must be detected. For example, a pressure sensor is necessary to detect the caliper pressing force or a torque sensor 17 must be employed. Motor rotation is not detected in the Takashi device to determine vibration of the braking apparatus. Therefore, the Takashi device is significantly different from the device of the present claims.

In particular, claim 1 requires a rotation detecting portion for detecting a rotational amount of the electric motor that drives the friction members. The Takashi publication fails to

disclose such a rotation detecting portion. Therefore, this limitation of claim 1 is not satisfied by the Takashi publication, and the section 102 rejection should be withdrawn.

The office action states that parts designated with reference numbers 16 and 17 detect a rotation amount of the electric motor. However, reference number 16 designates a detector for sensing fluctuation of caliper force, and reference number 17 detects braking torque. Neither of these sensors detects a rotation amount of the electric motor, which is apparently designated by reference numbers 7-10 in the Takashi reference. If this rejection is repeated, the applicants respectfully request that the office action set forth precisely (using page number and line numbers) where detection of rotation of the motor is disclosed in the machine translation of the Takashi publication.

Claim 1 further requires a rotation fluctuation calculating portion for calculating a fluctuation amount of the rotational amount of the electric motor. The Takashi publication fails to disclose such a fluctuation calculating portion. Although the Takashi device has a caliper force fluctuation frequency detecting means 16, the Takashi reference fails to disclose any structure that calculates fluctuation of the rotation amount of the electric motor. Therefore, this limitation of claim 1 is not satisfied by the Takashi publication, and the section 102 rejection should be withdrawn.

The office action states that the ECU 3 serves as a rotation fluctuating calculating portion. However, there is nothing in the Takashi reference that indicates that the ECU 3 detects rotation fluctuation of the motor that drives the friction members. If this rejection is repeated, the applicants respectfully request that the office action set forth precisely (using page number and line numbers) where the rotation fluctuation calculating portion for determining rotation fluctuation of the motor rotation is disclosed in the Takashi reference.

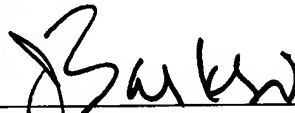
Claims 5-12 are new. Claims 5-8 are means-plus-function claims that closely correspond to claims 1-4. Claims 5-8 are considered to be patentable over the Takashi reference at least for the reasons given above with respect to claim 1.

Claims 9-12 are method claims that closely correspond to claims 1-4. Claims 9-12 are considered to be patentable over the Takashi reference because the Takashi reference fails to disclose detecting a rotational amount of the electric motor and calculating a fluctuation amount of the electric motor as discussed above with respect to claim 1.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



James E. Barlow
Reg. No. 32,377

Posz & Bethards, PLC
11250 Roger Bacon Drive, Suite 10
Reston, VA 20190
Phone 703-707-9110
Fax 703-707-9112
Customer No. 23400